

REMARKS

Claim 1 has been amended to overcome the rejection under 35 U.S.C. 102(b).

Claims 2 – 4 have been cancelled..

Claim 5 has been added.

Antecedent basis for claims 1 (amended) and 5 (new) is provided by the specification, paragraph 0011/0012, and by **FIG. 2**.

Antecedent basis for claim 6 (new) is provided by **FIG. 1-A**.

Antecedent basis for claims 7 and 8 (new) is provided by the specification at paragraph 0012/0013, lines 1 – 3.

APPLICANTS' ARGUMENTS FOR PATENTABILITY

Claim 1 (currently amended)

It is submitted that neither U.S. Pat. 6,080,193 to Thweatt, Jr. nor U.S. Pat. 4,736,091 to Moe, whether taken as single documents or as a combination of documents, discloses, suggests, or in any way makes obvious the following qualifying characteristics recited in claim 1; viz., a current-sensing first resistor; a voltage regulator; a first potentiometer, an operational amplifier; an adjustable voltage divider comprising a fixed second resistor, a second potentiometer, and a comparator for comparing amplified voltage with set-temperature voltage generated by the voltage divider; and a first switch, for providing an additional path to ground for the voltage regulator through a third potentiometer, when the set temperature is reached and the comparator goes high, turning on the first switch, thereby lowering output voltage applied to the wire by the voltage regulator, whereby the voltage applied to the wire lies between two adjustable values controlled by the first and third potentiometers.

Reconsideration, withdrawal of the rejection, and allowance of claim 1 as amended are respectfully requested.

Claim 5 (new)

This added claim requires the inclusion of a light-emitting diode and a second switch, in addition to the elements recited in claim 1. These additional elements function to register the point at which the set temperature is reached.

It is submitted that neither Thweatt, Jr. nor Moe, whether taken singly or taken in combination, discloses, suggests, or in any way makes obvious the inclusion of a light-emitting diode operating through a switch, for registering the point at which a set temperature is reached. The light-emitting diode 31 disclosed by Moe is not connected to a switch, nor is it constructed and arranged so as to register the set temperature. (Col. 3, lines 39 – 47.)

Reconsideration and allowance of claim 5 are respectfully requested.

Claim 6 (new)

This claim requires that the wire be coaxially disposed in the passageway, in order to provide a minimum operating volume.

The present invention has important and practical advantages for flow-injection analysis, as illustrated by Examples I and II, paragraphs 0018/0019 and 0019/0020, respectively. In such analysis, a carrier liquid flows through the analyzer, and an analyte is injected into the carrier stream. Analyte can be of limited supply, therefore precious; only a small amount of sample is usually injected. Moreover, it is vital to keep the dispersion of the injected sample at a low level. Dispersion increases directly as the square of the diameter of the conduit. Hence, the tube through which the sample flows must be small in diameter. Indeed, anything larger than two millimeters in diameter is practically useless in such applications. The only way to dispose a heater in such a tube is coaxially.

Reconsideration and allowance of claim 6 are respectfully requested.

Claim 7 (new)

This claim specifies that the wire is bare; i.e., not electrically insulated. When the bare wire is made of certain metals, the wire is known to catalyze certain chemical reactions, as taught in paragraph 0012/0013, lines 1 – 3 of the specification. Use of a bare non-insulated wire in the heater disclosed by Thweatt, Jr. would pose a substantial safety risk.

Reconsideration and allowance of claim 7 are respectfully requested.

Claim 8 (new)

This claim specifies that the wire is made of platinum. Certain reactions are known to be surface-catalyzed by this metal, as taught by the specification at paragraph

0012/0013. Hence, the use of a bare platinum wire in such applications is highly advantageous.

Reconsideration and allowance of claim 8 is respectfully requested.

SUMMARY, CONCLUSIONS, AND PETITION

In conclusion, it is submitted that, in view of the amendments and arguments herein presented, the application is in condition for allowance. Reconsideration, withdrawal of the rejection, and allowance of the application are respectfully requested.

Respectfully submitted

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